

Canadian Cell Phone Provider Simplifies Management with Integrated Systems for Azure Stack HCI

Prairie Mobile Communications eliminates data center complexity and reduces costs with Microsoft and DataON



The Challenge



- Consolidate three-tier SAN and eliminate expensive VMware and OEM service contract fees
- Simplify management, operation, and switches and cabling
- Improve performance
- Get 24/7 full-service support

Organization

Prairie Mobile Communications (PMC) is Western Canada's largest independent and privately-owned communications technology provider, providing both two-way radio and cellular communications solutions. PMC is headquartered in Winnipeg, Manitoba, Canada and has over 200 employees in its 22 locations throughout Alberta, Saskatchewan, Manitoba, and Northwest Ontario.



Challenge

After the company purchased Microsoft Office 365 and deployed its Exchange and SharePoint servers to the cloud, PMC needed to consolidate its aging three-node SAN solution and reduce costs by eliminating VMware and OEM service contract fees. Its SAN design was overly complicated, difficult to manage, and overpowered for what the company needed. PMC wanted to simplify management and operations, increase performance, and eliminate any excess cables and switches with a cost-effective solution. Because PMC had a small IT department, it was essential that it find a turnkey solution with full service 24/7 customer support.

Solution

While in a role at a previous company, Kevin Lund, Director of IT, PMC was part of an IT team that successfully implemented a Microsoft Azure Stack HCI solution from DataON. As a huge advocate of streamlining environments, Lund saw the simplicity and cost efficiency of an Azure Stack HCI solution as an ideal SAN replacement. With a hyper-converged solution, he could consolidate his infrastructure and eliminate VMware monthly fees using Hyper-V, included at no extra cost within Azure Stack HCI.

PMC approached DataON and talked with the sales team. Within a day, it received a quote. PMC found that it could get a cutting-edge, highly scalable solution with all-NVMe flash memory, 2nd Gen Intel® Xeon® Scalable processors, and NVIDIA Mellanox ConnectX 25GbE RDMA networking that could provide superior performance compared to a SAN. Lund highlighted to management the cost advantages of purchasing and deploying an Azure Stack HCI solution from DataON over keeping an OEM SAN running VMware. With its lower operating expenditures, lack of expensive VMware and OEM service fee subscriptions and contracts than it incurred with its existing SAN solution, the Azure Stack HCI solution from DataON was a more cost-effective option that paid for itself.

What is Microsoft Azure Stack HCI?

- World-class hyper converged infrastructure stack consisting of Hyper-V, Storage Spaces Direct, and software-defined networking
- Integrates with Azure so you can natively monitor, secure, and backup to the cloud
- Provides highly available and resilient performance for SQL Server databases and virtual desktops with edge-local access



The Solution

DataON AZS-108 Integrated System for Azure Stack HCI

- Intel® all-NVMe Flash (flat configuration)
- 2nd Generation Intel® Xeon® Scalable Processors
- NVIDIA/Mellanox ConnectX 25GbE RDMA Networking
- Windows Admin Center
- DataON MUST and DataON MUST Pro for Windows Admin Center

Workloads running on Azure Stack HCI

- Hyper-V
- File Share
- Domain Controller
- SQL Server

Azure Hybrid Cloud Services

- Azure Monitor
- Azure Backup

PMC purchased a two-node DataON AZS-108 Integrated System for Azure Stack HCI with all-NVMe flash, delivering the performance and IOPS needed to drive its SQL Server workloads for its core financial services. The nodes were directly attached, eliminating the need for expensive Ethernet switches, and further simplifying cabling and the deployment process.

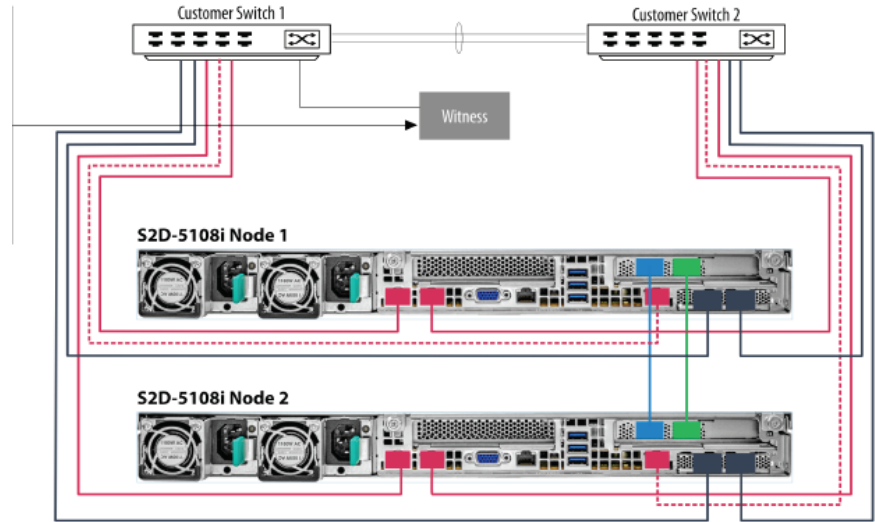


Figure 1: AZS-108 networking diagram

The DataON AZS Integrated System for Azure Stack HCI was a complete, pre-tested, benchmarked and stress-tested, validated turnkey solution. It included sixteen hours of customer deployment services, pre-deployment readiness review and an Azure Stack HCI as a service subscription. There was no upfront licensing required. With Windows Admin Center, PMC could quickly configure and manage its Azure Stack HCI cluster and Hyper-V and incorporate Azure Monitor and Azure Backup for a complete hybrid cloud experience. As part of the Azure family, Microsoft continues to update and add new services, ensuring that PMC is using the latest version of his Azure Services.

The solution included DataON MUST, a native extension for Microsoft Windows Admin Center, that provided historic data reporting, enhanced disk mapping, alert services, call home service, and an infrastructure inventory management tool. It also included DataON MUST Pro, a cluster aware update (CAU) tool exclusive to DataON Integrated Systems that allowed administrators to update an entire Azure Stack HCI cluster in just a few clicks.

Results

With the full backing of DataON and its 24/7 customer support, by choosing a DataON AZS-108 Integrated System, PMC was able to quickly get up and running. Managing the new Azure Stack HCI infrastructure was a breeze with Windows Admin Center. It simplified server administration with streamlined server management tools and a new cluster configuration wizard that reduced configuration times from hours to minutes. It also included stretched cluster functionality, giving PMC the option to increase resiliency by stretching a cluster across nodes at two locations. If a catastrophic event happened at one site, the cluster would remain up and running.

The Azure Stack HCI subscription was monitored, supported, and licensed through Microsoft Azure, making it easy to manage payments and quickly add the Azure Hybrid Cloud Services it needed, including Azure Monitor and Azure Backup. At any time, it could choose other valuable services like Azure File Sync, Azure Site Recovery, Azure Network Adapter, Azure Monitor, Azure Arc, Azure Update Manager, and Azure Security Manager.



The Result



- Consolidated infrastructure with an Integrated System for Azure Stack HCI from DataON
- Eliminated expensive VMware and OEM service contract fees
- Streamlined infrastructure management with Windows Admin Center, DataON MUST and DataON MUST Pro
- Improved SQL ERP performance by 10x
- Received world-class 24/7 support from DataON with 16 hours of deployment services

The new Azure Stack HCI offered PMC more services, frequent updates, and pricing scaled down for the edge, costing as little as ten dollars per core, per month, making it even more cost-efficient than previous Microsoft offerings.

PMC is also using DataON MUST and MUST Pro with Windows Admin Center. Because they are native extensions for Windows Admin Center, PMC can use them all in a single pane of glass, thus further streamlining its experience. With MUST Pro, PMC can update its complete Azure Stack HCI infrastructure, from firmware to software, instead of manually checking and updating each node. With the new Microsoft Kernel Soft Reboot (KSR), a premium feature available on all Azure Stack HCI integrated systems from DataON, PMC could also update its cluster and reboot the servers faster than a typical reboot, minimizing downtime and disruption of service.

Latest result: 9/22/2020 16:50 Scan

Category	Latest / Action	CustDemo1	CustDemo2
Windows			
Edition	Windows Server 2019 Datacenter	Windows Server 2019 Datace...	Windows Server 2019 Datace...
Version		1809	1809
OS Build		17763.1457	17763.1457
Updates Ins...13		13	13
System			
BIOS	SE5C620.86B.02.01.0011.032620200659	SE5C620.86B.02.01.0009.0928...	SE5C620.86B.02.01.0009.0928...
BMC	2-42-A488B7D0	2-22-3AB8C359	2-22-3AB8C359
Chipset	10.1.18383.8213	10.1.18019.8144	10.1.18019.8144
Graphics Driver	9.0.10.110	9.0.10.110	9.0.10.110

Because the updates come from the latest quarterly validated server component image baseline from Microsoft, Lund didn't have to worry about compatibility issues. It also found the Microsoft and DataON interfaces to be clean, intuitive, and seamless.

After offloading traditional Exchange and SharePoint workloads to the cloud, PMC configured the two-node solution to manage specific subsets, primarily the SQL-based enterprise resource planning workloads. It saw a 10x increase in application performance that was noticeable to employees and management. Because the Azure Stack HCI solution was highly scalable, if PMC needed to add other workload subsets, it could easily and affordably add two-node server deployments to his infrastructure.

With the Azure Stack HCI switchless solution, PMC didn't need to buy additional switches and was able to minimize cabling for a neat, clean interconnect between the two nodes.

Tips

There are many Azure Stack HCI solutions available from different vendors, but not all of them are simple to deploy and manage. Lund said, "Choose DataON and buy a complete solution like a DataON Integrated System for Azure Stack HCI. It simplified and streamlined our infrastructure deployment and management. If there are any questions or issues, we can count on DataON and its highly-responsive support team."

About DataON

DataON is a hybrid cloud computing company focused on delivering Microsoft Azure Stack HCI, on-premises storage systems, intelligent edge appliances, and cloud-based Microsoft Azure Services. Our company is helping enterprises and customers who have made the "Microsoft choice" to modernize their IT with Microsoft applications, virtualizations, and data protection through a complete and turnkey experience. With over 850 HCI clusters and 150PB of storage deployed, DataON enterprise-level solutions are designed to provide the highest level of performance, manageability, and security offered. DataON is a Microsoft Gold Partner, Microsoft Cloud Service Provider (CSP), and an Intel Platinum Partner.



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